SENATE BILL No. 1851

Introduced by Senator Bowen

February 20, 2004

An act to amend Sections 15814.31 and 15814.34 of, to amend and repeal Section 15814.30 of, and to add Sections 15814.30.2, 15814.30.5, and 15814.31.5 to, the Government Code, relating to state property.

LEGISLATIVE COUNSEL'S DIGEST

SB 1851, as introduced, Bowen. State buildings and publicly funded schools: standards.

Existing law requires all new state public buildings and publicly funded schools to be models of energy efficiency and to be designed, constructed, and equipped with all energy efficiency measures, materials, and devices that are feasible and cost-effective over the life of the building. Existing law also requires all state public buildings and publicly funded schools, when renovated or remodeled, to be retrofitted to meet specified building standards.

This bill would require until July 1, 2007, all new state public buildings for which design and construction begins after January 1, 2005, except for publicly funded schools, to exceed the minimum building energy efficiency standards mandated by the California Building Standards Code if the measures achieve certain cost savings.

The bill would require all new state public buildings for which construction begins after July 1, 2007, except publicly funded school buildings, to exceed the minimum building energy efficiency standards mandated by the California Building Standards Code using energy efficiency measures, materials, devices, and indoor air quality measures that are feasible and cost-effective, as prescribed by the Integrated Waste Management Board.

The bill would also require all state office buildings for which construction begins after July 1, 2007, that are used, in whole or in part, for state offices to follow green building standards and utilize green building measures, materials, and devices, as specified. The bill would require the California Integrated Waste Management Board to promulgate regulations in this regard, on or before October 1, 2006. The bill would also require that all existing state public buildings, except publicly funded school buildings, when renovated or remodeled, be retrofitted to meet minimum energy standards. The building systems affected by the renovation or remodeling would be required to be retrofitted with all energy efficiency measures, material, devices, and green building measures that are feasible and cost-effective.

The bill would provide that publicly funded school buildings shall continue to be subject to the same provisions that are applicable to new construction or renovation of publicly funded schools under existing law.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares the following:

(a) The state spends more than two hundred fifty million dollars ($250,000,000) annually for energy at state-funded institutions.

(b) Executive Order W-83-94 establishes energy conservation goals at state facilities and requires the Department of General Services' Office of Energy Assessments to work with all state departments and agencies to establish individual department goals based on each department's share of overall state energy cost.

(c) Green building goes beyond energy efficiency measures to include, but not be limited to, using certified sustainable wood products; aggressive use of high recycled content products; installation of recyclable carpet, high efficiency lights, and CFC-free air-conditioning equipment; separation and recycling of building material waste that occurs during deconstruction, demolition, and construction; enhancement of indoor air quality by selection and use of construction materials that do not have chemical emissions that are toxic or irritant to building occupants;

modification of heating, ventilation, and air-conditioning systems to provide high-quality indoor air; selection of construction materials made of substantial recycled content; installation of high performance solar control glazing; use of recycled water in interior and exterior plumbing and landscape; and installation of alternative energy methods for supplemental energy production.

(d) By calling on the state to include green building measures in its own facilities, the Legislature provides taxpayers a benefit through greener, cheaper to operate buildings and simultaneously helps to develop markets for recycled, recyclable, and environmentally sound materials.

(e) It is critical to both the economic and environmental health of the state that the state provide leadership to both the private and public sectors in the arena of energy efficiency and ''green'' construction. The most immediate and meaningful way to do this is to include energy efficiency and green building elements in all public buildings, as defined in Section 15814.11 of the Government Code.

SEC. 2. Section 15814.30 of the Government Code is amended to read:

15814.30. (a) All new public buildings for which *design and* construction begins after January 1, ~~1993~~ *2005, except publicly funded school buildings*, shall be models of energy efficiency and shall be designed, constructed, and equipped *to exceed the minimum building energy efficiency standards required by Part 6 (commencing with Section 100) of Title 24 of the California Code of Regulations if the measures are cost-effective pursuant to subdivision (c). New public buildings shall be designed, constructed, and equipped* with all energy efficiency measures, materials, and devices that are feasible and cost-effective over the life of the building or the life of the energy efficiency measure, whichever is less.

(b) In determining which energy efficiency measures, materials, and devices are feasible and cost-effective over the life of the building, the State Architect and the Department of General Services shall consult with the State Energy Resources Conservation and Development Commission.

(c) For purposes of this section, ''cost-effective'' means that savings generated over the life of the building or the life of the energy efficiency measure, whichever is less, shall exceed the

incremental cost of purchasing and installing the energy efficiency measures, materials, or devices by not less than 10 percent.

(d) The Department of General Services shall ensure compliance with this section.

(e) This section shall become inoperative on July 1, 2007, and, as of January 1, 2008, is repealed, unless a later enacted statute, which becomes effective on or before January 1, 2008, deletes or extends the dates on which it becomes inoperative and is repealed.

SEC. 3. Section 15814.30.2 is added to the Government Code, to read:

15814.30.2. (a) All new public buildings for which construction begins after July 1, 2007, except publicly funded school buildings, shall be models of energy efficiency and shall be designed, constructed, and equipped to exceed the minimum building energy efficiency standards mandated by Part 6 (commencing with Section 100) of Title 24 of the California Code of Regulations. New public buildings shall be designed, constructed, and equipped with all energy efficiency measures, materials, devices, and indoor air quality measures that are feasible and cost-effective, as defined in subdivision (d).

(b) All state office buildings for which construction begins after July 1, 2007, that are used, in whole or in part, for state offices and that are constructed by the state with local, state, federal, or private funds or in conjunction with any local or federal agency, shall follow green building standards, as described in subdivision (d), and be designed, constructed, and equipped with all green building measures, materials, and devices that are cost-effective, as defined in subdivision (c).

(c) For purposes of this section, ''cost-effective'' shall be defined by the Department of General Services in consultation with the State Energy Resources Conservation and Development Commission. Cost-effectiveness shall be determined by a life cycle cost analysis based, at a minimum, on all of the following:

(1) The life of the building or the life of the energy efficiency and green building measures.

(2) The incremental cost of purchasing and installing the measure, when compared to the measure, material, labor, or device that meets the minimum requirements of Part 6 (commencing with Section 100) of Title 24 of the California Code of Regulations.

(3) For energy efficiency measures, the annual energy savings when compared to the measures that meet the minimum requirements of Part 6 (commencing with Section 100) of Title 24 of the California Code of Regulations.

(4) For green building measures, the annual economic and societal benefits when compared to other alternatives considered.

(5) The incremental difference of the annual operating and maintenance costs associated with the energy efficiency and green building measures, materials, labor, or devices when compared to the measures, materials, labor, or devices that meet the minimum requirements of Part 6 (commencing with Section 100) of Title 24 of the California Code of Regulations.

(d) On or before October 1, 2006, the California Integrated Waste Management Board, in consultation with the Department of General Services, the State Energy Resources Conservation and Development Commission, the Air Resources Board, and the State Department of Health Services, shall promulgate regulations that prescribe green building measures that are applicable to the design, construction, and operation of state office buildings. These regulations shall include green building measures, materials, and devices, including, but not limited to, all of the following:

(1) Water recycling and conservation measures in interior and exterior plumbing and landscaping.

(2) Disposition, recycling, or limitation of construction and demolition waste.

(3) Utilization of building materials that contain recycled materials that meet current building standards, including, but not limited to, recycled and recovered construction and demolition waste and recyclable carpets.

(4) Utilization of alternative energy technologies and products that provide nonquantifiable public benefits even if they may not be cost-effective, as defined in subdivision (c), when compared to conventional technologies and products, including, but not limited to, onsite generation technologies, such as photovoltaics, fuel cells, or solar heating systems for water and swimming pool heating purposes.

(5) Measures to improve indoor air quality.

(6) Interior office space access to natural daytime lighting.

(7) Storage and collection of recyclable materials used by building occupants, including, but not limited to, beverage containers, aluminum, paper, and other materials.

(8) Installation of wiring, piping, or other infrastructure to provide for future installation of recharging systems for electric vehicles, or refueling of alternative fuel vehicles, as appropriate to the use of the building and potential future demand by fleet vehicles, employees, or the public. The board shall also consider refueling facilities for alternative-fueled vehicles at public buildings located in remote areas that have an associated fleet of alternative-fueled vehicles.

(9) Designated parking for alternative fuel vehicles and carpool vehicles.

(10) Siting considerations, including urban infill development, reduced habitat disturbance, and preservation and restoration of historic buildings, if applicable.

(11) Surface runoff filtration and surface runoff reduction from the building and any new parking structures constructed or renovated to accommodate the building.

(12) Bicycle infrastructure, including easily accessible enclosed locking facilities for bicycle parking, bicycle lockers, showers, and personal locker facilities.

(13) Consideration of convenient access to public transit, including minimal setbacks to accommodate shorter walking distances from transit stations.

(14) Construction and demolition debris planning to address debris from deconstruction of onsite structures and new construction.

(15) Building commissioning including testing and monitoring of building systems operations to ensure that building design and operation criteria are achieved and maintained.

(16) Consideration throughout the design and construction phases of opportunities to reduce each proposal's annual projected energy consumption.

SEC. 4. Section 15814.30.5 is added to the Government Code, to read:

15814.30.5. (a) All new publicly funded school buildings for which construction begins after January 1, 1993, shall be models of energy efficiency and shall be designed, constructed, and equipped with all energy efficiency measures, materials, and

devices that are feasible and cost-effective over the life of the building or the life of the energy efficiency measure, whichever is less.

(b) In determining which energy efficiency measures, materials, and devices are feasible and cost-effective over the life of the building, the State Architect and the Department of General Services shall consult with the State Energy Resources Conservation and Development Commission.

(c) For purposes of this section, ''cost-effective'' means that savings generated over the life of the building or the life of the energy efficiency measure, whichever is less, shall exceed the cost of purchasing and installing the energy efficiency measures, materials, or devices by not less than 10 percent.

SEC. 5. Section 15814.31 of the Government Code is amended to read:

15814.31. ~~All~~ *(a) When renovating or remodeling* existing public buildings, ~~when renovated or remodeled,~~ *except publicly funded school buildings, the affected building system* shall be retrofitted to meet the minimum standards, consistent with ~~subdivision (d) of~~ *Part 6 (commencing with* Section ~~2-5301~~ *100)* of Title 24 of the California Code of Regulations ~~(California Building Code)~~, established pursuant to Division 15 (commencing with Section 25000) of the Public Resources Code ~~applicable to the building~~. *In addition, building systems affected by the renovation or remodeling of existing public buildings, except publicly funded school buildings, when renovated or remodeled, shall be retrofitted with all energy efficiency measures, material, devices, and all green building measures, as specified by regulations adopted pursuant to subdivision (d) of Section 15814.30.2, that are feasible and cost-effective, as defined pursuant to subdivision (c) of Section 15814.30.2.*

(b) The Department of General Services shall ensure compliance with this section.

SEC. 6. Section 15814.31.5 is added to the Government Code, to read:

15814.31.5. All existing publicly funded school buildings, when renovated or remodeled, shall be retrofitted to meet the minimum standards, consistent with subdivision (d) of Section 2-5301 of Title 24 of the California Code of Regulations,

established pursuant to Division 15 (commencing with Section 25000) of the Public Resources Code applicable to the building.

SEC. 7. Section 15814.34 of the Government Code is amended to read:

15814.34. (a) The Legislature finds and declares all of the following:

(1) The state purchases a number of commodities, including, but not limited to, lighting fixtures, heating, ventilation and air-conditioning units, and copiers, that cumulatively account for a significant portion of the energy consumed by state operations.

(2) The state can realize significant energy savings and reduced energy costs by purchasing brands or models of commonly used commodities with low life cycle costs.

(3) Commodities necessary for state operations may be purchased directly by the state department or agency using the commodity, or may be purchased by the Department of General Services on behalf of other state departments or agencies.

(4) In order to increase energy efficiency, *promote green building standards as specified in subdivision (d) of Section 15814.30.2,* and reduce costs to the taxpayers of the state, the state should make every reasonable effort to identify and purchase those commodities that ~~have the lowest life cycle cost~~ *are cost-effective, contain recycled materials,* and meet the operational requirements of the state.

(b) The Department of General Services shall, on an ongoing basis, do all of the following:

(1) Identify commodities purchased by the department that, individually or on a statewide basis, consume a significant amount of energy.

(2) For each commodity identified pursuant to paragraph (1), determine the life cycle cost of the following:

(A) The brand or model of the commodity purchased by the department.

(B) The brand or model of the commodity that has the lowest life cycle cost, provided it is available for purchase by the state and meets all operational specifications of the state.

(3) Consult with the Energy Resources Conservation and Development Commission in the development and revision of one or more methods of determining the life cycle costs of commodities.

(4) When designing new public buildings or retrofitting or remodeling existing buildings, adopt an integrated systems approach that treats the entire building as one system and recognizes that individual building features, such as lighting, windows, heating and cooling systems, or control systems, are not stand-alone systems and must be considered in the context of one another.

(5) When designing new public buildings, incorporate energy efficiency and green building technologies during the conceptual design phase of the building design process.

(6) Through public documents maintained by the State Architect, demonstrate and document the compliance of each new public building with Part 6 (commencing with Section 100) of Title 24 of the California Code of Regulations and the provisions of this chapter.

(7) Develop and implement a postconstruction process, such as building commissioning, that validates that intended design objectives have been satisfied and the building functions as intended.

(c) In order to assist other agencies and departments in identifying commodities with the lowest life cycle costs, the Department of General Services shall distribute the following to all state agencies and departments:

(1) A list of those commodities with the lowest life cycle costs, as determined pursuant to paragraph (2) of subdivision (b).

(2) The method or methods used by the Department of General Services to determine the life cycle costs of commodities.

(d) The method or methods used by the Department of General Services to calculate the life cycle costs of commodities shall be designed to be easily understood and used by purchasing agents and other personnel in making purchasing decisions.

(e) Notwithstanding any other provision of law, all state agencies and departments shall purchase those commodities identified pursuant to subdivision (b) that have the lowest life cycle costs and that meet the applicable specifications, and shall make every reasonable effort to identify and purchase other commodities with the lowest life cycle costs.

(f) ''Life cycle cost'' for the purposes of this section, means the total cost of purchasing, installing, maintaining, and operating a device or system during its reasonably expected life. It includes,

but is not necessarily limited to, capital costs, labor costs, energy costs, and operating and maintenance costs.

O